U.S. ARMY ENVIRONMENTAL CENTER

ANNUAL REPORT 1998

MISSION

Mission

- Integrate, Coordinate and Oversee Implementation of Army Environmental Programs for the Headquarters, Department of the Army Staff.
- Provide Technical Services and Products to Army Headquarters, Major Commands and Commanders.
- Promote Readiness and Enhance Quality of Life.

Commander's Message

THE U.S. Army Environmental Center is a leader in fulfilling the ***Army's Environmental Vision of Sustaining Readiness, Improving Soldiers' Quality of Life, Strengthening Community Relationships and Providing Sound Stewardship of Resources.*** Working with other environmental organizations throughout the Defense Department, we execute a strategy that focuses on people, partnerships, performance and integration.

The USAEC Vision:

- World's best environmental center
- Full spectrum support
- Total force excellence
- A value-based organization
- Integral part of the DoD team
- Responsive
- Changing to meet challenges today into the 21st Century

For more than 25 years, USAEC and its partners integrated environmental stewardship into the daily fabric of Army activities. Army Headquarters, major commands, installations, soldiers and their families made dramatic improvements in several areas: preventing pollution; maintaining realistic training areas while protecting natural resources; complying with a complex array of new environmental laws and regulations; cleaning up and restoring contaminated areas; and sustaining the environmental ethic.

A larger success story at USAEC is our intense effort to reduce the escalating costs of environmental work while sustaining readiness and preserving stewardship. Our multidisciplinary teams, together with other environmental organizations throughout the Army and Department of Defense, avoided or saved hundreds of millions of dollars that might have been drawn from critical readiness accounts. Our teams consistently found affordable, efficient and cost-effective ways of helping the Army meet its environmental requirements, while reducing costs of environmental programs and freeing up resources for training and other military operations.

This annual report — the Center's first — reflects the major programs and initiatives USAEC managed during Fiscal Year 1998. These accomplishments represent a spirit of innovation, initiative and imagination that carries through everything we do. USAEC, as always, continues its commitment to environmental stewardship and making a direct contribution to Army mission success.

COL Edward W. Newing
COMMANDER
U.S. Army Environmental Center

Success

Highlights from Fiscal 1998:

A QUICK LOOK AT A FISCAL YEAR OF UNPRECEDENTED SUCCESS AT USAEC.

Defending our nation includes protecting our environment and the well-being of the American people. One of USAEC's most critical challenges is to help the Army meet an ever-growing list of environmental requirements, in ways that enhance its ability to train and meet other mission goals. It's a challenge we meet through innovation and initiative.

New Leadership

On July 22, 1998, Col. Edward W. Newing, a former senior chemical officer for V Corps and U.S. Army Europe, assumed command of USAEC from Col. Richard K. Weiner. Col. Newing returned to USAEC 14 years after serving in USAEC's predecessor organization as chief of installation assessments, leading a team that laid the foundation for the Army's environmental restoration program. Col. Newing brings a unit-level, installation-level and major-command perspective to his task as USAEC commander, and he has pledged his commitment to maintaining the Center's position as a world-class environmental organization.

Expert Evaluations

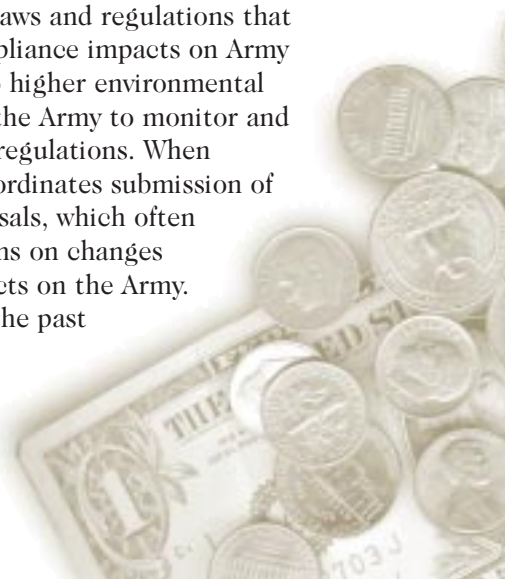
When the Army invests large amounts of time, money and resources in restoration projects, it needs to make sure those measures will be effective and cost-efficient. In 1997, USAEC launched the Independent Technical Review program, under which technical experts from a range of environmental specialties offer unbiased evaluations of Army environmental cleanup projects. ***Review teams found opportunities to trim more than $39 million from Fiscal 1999-2000 cleanup budget plans – a 30-to-1 return on the program's operating costs. Reviewers also identified more than $100 million in potential long-term savings*** and recommended ways installations could devise cleanup plans that save money without sacrificing environmental protection.

Better Business

USAEC is working with Army installations to save substantial costs by improving the management of hazardous materials. Since Fiscal 1996, our Hazardous Substance Management System (HSMS) team has helped more than 20 installations establish HSMS programs, which combine better business practices with state-of-the-art management software to reduce the use of hazardous materials and, subsequently, generate less hazardous waste. ***Fort Campbell, Kentucky, has avoided more than $2 million in hazardous-materials management and waste-disposal costs through HSMS; Fort Carson, Colorado, saved nearly $1 million.*** USAEC is working with major commands to implement HSMS at 100 Army installations by 2004.

Lower Regulatory Costs

USAEC's Environmental Legislative/Regulatory Analysis and Monitoring Program (EL/RAMP) keeps the Army abreast of potential changes in federal, state and local laws and regulations that could have adverse compliance impacts on Army operations – and lead to higher environmental costs. EL/RAMP allows the Army to monitor and analyze these proposed regulations. When necessary, EL/RAMP coordinates submission of comments on the proposals, which often include recommendations on changes that minimize the impacts on the Army. EL/RAMP success over the past year included the Environmental Protection Agency's postponement and



modification of a proposed disposal rule for polychlorinated biphenyls (PCBs), which ***COULD HAVE COST THE ARMY $72 MILLION A YEAR*** with no commensurate environmental benefits.

Range Rule

USAEC is leading the development of a complex, multifaceted Defense Department regulation for addressing health and safety risks from unexploded ordnance at former military ranges. USAEC staff drafted much of the DoD "Range Rule" and fine-tuned it based on input from other military services and affected federal and state agencies, American Indian tribes, citizens' groups and private industry. When implemented, ***THE UNIFORM STANDARDS SPELLED OUT IN THE RULE COULD HELP THE DEFENSE DEPARTMENT SAVE NEARLY $13 BILLION*** in long-term compliance costs.

Ranges of the Future

USAEC has teamed with Army training experts to produce tools, technologies and management techniques that will help training ranges comply with environmental regulations, maintain realism and stay available for future use. The Range XXI initiative is designed to help the Army sustain its training areas by providing trainers with innovative and cost-effective solutions for compliance, conservation and pollution prevention. The Army reached a Range XXI milestone in Fiscal 1998 when Alaska Army National Guard soldiers tested "lead free" bullets made with a tungsten-and-tin core. The environmentally friendly service rounds fire as fast and straight as lead bullets – and ***THEIR USE WILL HELP THE ARMY REDUCE THE COST TO COMPLY WITH REGULATIONS AND MAINTAIN SMALL ARMS RANGES.***

ITAM Initiatives

One of the Army's most valuable tools for managing environmental programs on its training lands is the Integrated Training Area Management (ITAM) program. ITAM managers opened four Regional Support Centers to provide assistance to more than 80 Army installations nationwide. The centers offer Geographic Information System (GIS) support services – from data development to custom maps and software – and are ***SAVING THE ARMY MORE THAN $1.5 MILLION A YEAR*** by eliminating the need for extra GIS personnel and implementing Armywide GIS data standards.

Cleaning Water, Cutting Costs

USAEC initiated Groundwater Extraction and Treatment System Effectiveness Reviews to ensure that the Army gets the greatest efficiency from its groundwater treatment systems. This effort involves teaming with Army Corps of Engineers and other experts to provide comprehensive reviews of the Army's existing and proposed pump-and-treat remediation operations. The reviews are helping Army installations realistically assess the systems they use and determine if modified operations or other, less-costly options will suffice. ***A REVIEW AT HUNTER ARMY AIRFIELD, FOR EXAMPLE, ESTIMATED THE GEORGIA POST COULD SAVE ABOUT $5 MILLION*** if it used "natural attenuation" (allowing natural processes to degrade contaminants) instead of installing a pump-and-treat system as planned.

Forging Stewardship

In October 1997, Gaylord Nelson, retired U.S. senator and former governor of Wisconsin, was the keynote speaker as USAEC celebrated 25 years as one of the Army's premier environmental organizations. A recipient of the Presidential Medal of Freedom, Nelson inspired the national grassroots movement that led to the first Earth Day in 1970. During his speech to USAEC staff and guests, Nelson congratulated the military on its commitment to sound environmental stewardship. But he also stressed that much work remains to be done. "Forging and maintaining a sustainable society is the challenge for this and all generations to come," he said.

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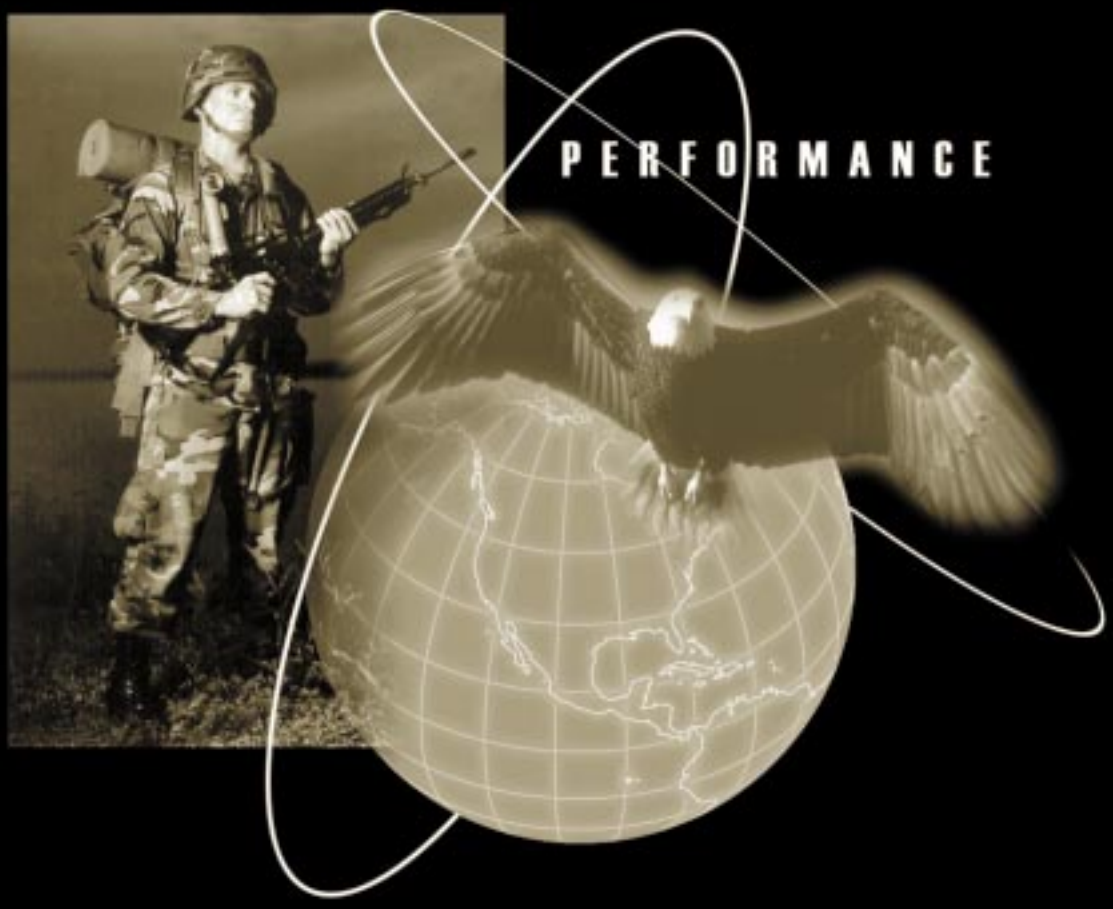
Performance

At any given time, USAEC professionals work on hundreds of projects that contribute to Armywide readiness, stewardship and quality of life. Here are some of the major initiatives the U.S. Army Environmental Center carried out during Fiscal 1998.



Performance

Restoration

USAEC oversees Army efforts to remediate pollution stemming from past mission activities and disposal practices.

USAEC's restoration mission covers the Installation Restoration Program (IRP) for active Army sites and restoration activities on Army Base Realignment and Closure (BRAC) installations. Our responsibilities include collecting and evaluating site-level data, visiting installations, assisting major commands and monitoring Army restoration efforts.

Stronger Support

USAEC started Fiscal 1998 by formally transferring day-to-day management and execution of installation restoration projects to the major Army commands and Army Corps of Engineers. We now take a broader approach to the restoration program, providing management and other technical services Armywide. Where our project officers once focused on site-specific details – such as the number of monitoring wells on a particular landfill – they now work with major commands to find cost-effective and consistent solutions for sites in the Installation Restoration and BRAC cleanup programs.

Our restoration management mission includes developing guidance for the Army's Restoration Advisory Board and Technical Assistance for Public Participation programs – and we updated guidelines for both programs in Fiscal 1998. We also brought the Defense Site Environmental Restoration Tracking System (DSERTS) to the World Wide Web, enabling installations to update their case files throughout the year and submit critical decisionmaking data through the Internet instead of sending disks through the mail.

Treatment Evaluations

We launched the Groundwater Extraction and Treatment System Effectiveness Reviews program, a comprehensive effort to examine the Army's groundwater pump-and-treat systems and possibly reduce the number of proposed and operating pumping systems. Program teams, which include experts from USAEC, the Army Corps of Engineers and the Army Science Board, review an installation's remediation system, determine the system's effectiveness, compare cleanup goals to appropriate human and ecological risk levels for current and eventual land uses, and assess whether alternative approaches can complete the remediation with significant cost savings. ***A review at Hunter Army Airfield in Georgia showed the installation would save about $5 million*** if it used "natural attenuation" (letting

natural processes degrade the contamination) instead of pump-and-treat. By optimizing existing treatment systems and setting clear cleanup objectives for new projects through the reviews, ***THE ARMY COULD POTENTIALLY SAVE $100 MILLION IN THE NEXT 10 YEARS.***

Independent Reviews

We implemented the Independent Technical Review (ITR) program for BRAC installations and "piloted" ITR in the active sites program. In this major effort to provide the expedited reviews required by the fast-paced Army BRAC program, USAEC coordinated and conducted meetings and site visits involving installation, regulatory, and expert contract support personnel. ITR teams developed detailed reports discussing sensitive regulatory and technical issues, providing information and making recommendations that support cleanup decisions in the Army BRAC Office. ***REVIEW TEAMS FOUND OPPORTUNITIES TO TRIM $39 MILLION FROM FISCAL 1999-2000 BUDGET PLANS – A 30-TO-1 RETURN ON ITR'S 1998 OPERATING COSTS. REVIEWERS HAVE ALSO SPOTTED MORE THAN $100 MILLION IN POTENTIAL LONG-TERM SAVINGS*** and recommended ways installations can improve their decisionmaking processes.

ITR Savings

Savanna Army Depot Activity accounted for the largest ITR savings last year. Finding minimal risk to human health and the environment, reviewers recommended no further action at an old burning ground. The Illinois installation's plans for a $68 million cleanup project on the site would have cost $25 million in Fiscal 1999-2000 alone.

REVIEWERS ALSO FOUND WAYS TO SAVE $9 MILLION AT SEVERAL ARMY RADIOLOGICAL SITES, where ITR involvement substantially reduced the survey plans yet still allowed installations to meet Nuclear Regulatory Commission requirements. ***USAEC IS PROVIDING TECHNICAL ASSISTANCE AT ONE OF THESE SITES, HELPING LEXINGTON DEPOT IN KENTUCKY DEVELOP A "TECHNICAL IMPRACTICABILITY" WAIVER TO CANCEL A PLANNED, $6 MILLION PUMP-AND-TREAT SYSTEM.***

Completing Construction

A "construction complete" tag is an installation's ticket off the National Priorities List (NPL), the Environmental Protection Agency's roster of high-priority cleanup sites. We're helping Army NPL installations reach construction completion by the year 2000, and some will make the milestone with time to spare. Schofield Barracks in Hawaii earned the designation in September 1998 and could soon become the second Army site removed from the NPL. We also worked with Fort Dix and the EPA to expedite the New Jersey installation's Superfund designation to construction complete – meaning the site's cleanup remedies are in place and protecting the surrounding environment.

Guidance Manuals

USAEC created the *U.S. Army Environmental Restoration Programs Guidance Manual*, a comprehensive "road map" designed to help Army environmental restoration specialists manage both Installation Restoration and BRAC environmental restoration programs. The manual – an updated and expanded version of the 1993 *Army Installation Restoration Program Guidance Manual* – is available on the Defense Environmental Network and Information eXchange (DENIX).

Performance

Compliance

USAEC PROGRAMS HELP KEEP THE ARMY IN COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS.

Army commanders must meet mission objectives while complying with increasingly stringent environmental laws and regulations. We devise cost-effective monitoring programs, permitting strategies and other proactive ways for Army installations to comply.

Sustaining Compliance

As program manager of the Environmental Compliance Assessment System (ECAS), we coordinated the third round of environmental compliance assessments at Army installations. "ECAS III" placed new emphasis on pollution prevention and environmental management, helping installations spot the causes of compliance deficiencies and focus resources on productive corrective actions. USAEC developed new ECAS software that allows installations, major commands and Army staff to easily find information on performance trends and other topics. We added three user's guides to the ECAS collection – *Range Control, Open Burning/Open Detonation* and *Water Treatment Systems* – that installations use to determine whether their facilities and processes comply with applicable environmental laws and regulations. The Army has also formed a Department of Defense committee, which includes other military services and federal agencies, to produce state and federal assessment protocols.

OB/OD Costs

Given the expense of operating certain Open Burning/Open Detonation facilities – where permits alone can cost more than $1 million – the Army has made it policy to minimize the number of "OB/OD" units on its installations. The Joint Ordnance Command Group conducted a permit optimization study ranking Defense Department OB/OD facilities from the most effective to the least effective, based on treatment and storage capacity, ability to accept off-site waste, state and local regulatory environment, installation mission needs and other criteria. USAEC is developing a comprehensive management guide that will help installation commanders evaluate the need for their OB/OD units, identify technical requirements to obtain a permit, and determine costs of unit closure. The Center also prepared a technical manual to assist with closure plan development and implementation.

Managing Risks

The Clean Air Act requires facilities that emit certain levels of hazardous substances to devise ways to minimize the occurrence and effects of a release of these substances into the air. We teamed with the Army Center for Health Promotion and Preventive Medicine to create an

applicability workbook, technical guidance, policy and training to ensure Army compliance with these Risk Management Plan regulations. Our survey found 54 installations would have to prepare plans by the initial deadline of June 1999. After learning of the requirements, several installations took measures to reduce their compliance costs and risks of a catastrophic release. ***THEIR INITIAL ACTIONS SAVED ABOUT $975,000***, and the installations will save more by adhering to requirements to maintain their Risk Management Plans.

Compliance through 'P2'

You don't have to tell us that preventing pollution is a key to environmental compliance – we helped write the book on it. USAEC teamed up with the Army Center for Health Promotion and Preventive Medicine, Air Force Human Systems Center and Naval Facilities Engineering Service Center to produce *Air Quality Management Using Pollution Prevention: A Joint Service Approach*. This document, designed for government air-quality managers and available on the Web, outlines pollution prevention techniques for managing air quality and maintaining compliance. It explains regulations, ***DESCRIBES SEVERAL COST-SAVING "P2" METHODS***, lists helpful points of contact, and provides links to the Joint Service P2 Technical Library and other valuable references.

New Standards

Over the next two years, under Title III of the Clean Air Act Amendments of 1990, the Environmental Protection Agency is scheduled to develop new National Emissions Standards for Hazardous Air Pollutants (NESHAPs) for about 100 hazardous substances. We gave installations information on these standards – and on what they'll have to do to comply – through the *Guidance on Clean Air Act Title III Regulations: National Emissions Standards for Hazardous Air Pollutants*. Our compliance experts prepared the guide, which describes the NESHAPs that will affect Army installations, the pollution controls they'll have to install and the technologies that meet their specific needs, and lists Defense Department contacts for information on those tools. The guide, available on the USAEC Web site, will help installations reduce their compliance costs and understand the technology standards and other studies required by Title III.

Problem Solvers

Army installations generally rely on their Defense Reutilization and Marketing Office (DRMO) for safe, timely and cost-effective disposal of hazardous waste. But the system can occasionally break down, and prolonged disagreements between an installation and its DRMO can lead to unnecessary costs and compliance problems. We worked with Army Headquarters, major commands and the Defense Reutilization and Marketing Service to develop a dispute-resolution process that will help installations use the chain of command to quickly settle DRMO business issues before they affect budgets and compliance.

Compliance Training

Awareness can be a powerful compliance tool – just ask the folks in USAEC's Southern Regional Environmental Office. After a North Carolina regulator spotted "hundreds" of potential violations of the state's new asbestos law at one Army installation, the regional office set up a training session in which state regulators offered information on how to prevent problems before an inspection. So far, the effort has helped Defense Department installations in the region avoid close to 20 Notices of Violation.

Performance

Conservation

Protecting Natural Resources

USAEC CONSERVATION STRATEGIES SUPPORT ARMY MISSIONS TO TRAIN AND REMAIN STRONG STEWARDS OF THE ENVIRONMENT.

Army installations collectively care for more than 12 million acres of public land, which include a variety of natural and cultural resources. Our proven conservation programs include tools and techniques that installations and major commands need to manage realistic training backdrops while preserving natural conditions and cultural legacies.

Protecting Natural Resources

USAEC supports Armywide efforts to protect endangered species, manage ecosystems, control erosion and develop effective programs that integrate natural resource protection into mission activities.

Integrated Management

Every dollar spent to prevent or quickly repair damage on a training range saves up to $25 dollars in long-term rehabilitation costs. USAEC teamed up with the Army Training Support Center and the Office of the Deputy Chief of Staff for Plans and Operations to develop a way to estimate costs for rehabilitating training lands. The new "ATTACC" method – now used at more than 20 installations as part of the Integrated Training Area Management (ITAM) program – gives trainers a more analytical and efficient way to program funds that lead to better environmental stewardship on ranges.

The Army also opened four ITAM Regional Support Centers, which provide Geographic Information System (GIS) assistance to more than 80 Army installations. The centers offer GIS services from data development to custom maps and software. The centrally funded technical support centers have saved money by assisting ITAM installations without GIS operators, improving methods at installations with GIS operators and implementing Armywide data standards. ***By reducing the need for extra personnel and improving GIS quality, the centers are saving the Army more than $1.5 million a year.***

Treasuring the Chesapeake

The Chesapeake Bay watershed is a treasured natural resource and home to 19 Army installations, including USAEC's headquarters at Aberdeen Proving Ground, Maryland. Our support to the Army's Chesapeake Bay Initiative – a model partnership between Defense Department and other federal agencies – includes technical, logistical and administrative assistance, and public awareness and education programs.

Bayside Buffers

We joined a new Department of Defense program to promote partnerships between installations and communities while teaching kids the importance of water resources. DoD is teaming with other federal agencies and several states to plant 2,010 miles of streamside forest buffers in the Chesapeake Bay watershed by 2010, including 80 miles of trees on military installations in Maryland, Virginia and Pennsylvania. USAEC is helping to develop a plan for the federal agencies to meet that goal.

The program started strong as several installations planted more than 4,500 trees along the Chesapeake's waterways in April and May 1998. AmeriCorps volunteers and the Maryland Department of Natural Resources joined Army and DoD staff to plant more than 3,000 native seedlings in streamside areas at Fort Meade; USAEC staff, local schoolchildren and Boy Scouts planted 500 trees near the Army Research Lab at Aberdeen Proving Ground.

Conservation

Protecting Natural Resources

Performance

Saving Species

Army lands contain hundreds of threatened and endangered species – and installations need sound ways to protect these plants and animals without disrupting training and other day-to-day operations. USAEC provided the Army Secretariat with comprehensive and current information on the status of endangered species on Army lands. We are using the data to prepare reports and build a baseline for Armywide threatened and endangered species management programs.

Managing Pests

USAEC helped update the Army regulation on pest management (AR 200-5), streamlining and clarifying command and control of the Army program while aligning it with Defense Department procedures, goals and objectives. We followed this accomplishment by developing the first *Directory of Army Pest Management Personnel*, a listing of more than 300 Army civilian and military entomologists and pest control specialists. The directory, to be made available on the Web and on CD-ROM, will save installations time and resources when looking for pest management expertise. USAEC also worked with the Army Center for Health Promotion and Preventive Medicine and the Department of Agriculture on several other important pest management projects.

Habitat Recovery

Fort Bragg is a busy installation located in the North Carolina Sandhills, which happens to be part of the last quality habitat for the endangered red-cockaded woodpecker (RCW). The Private Lands Initiative is designed to ease training restrictions on Fort Bragg by increasing and improving habitat on private lands around the installation. Training restrictions stemming from regional RCW habitat shortages could severely affect Fort Bragg's intensive training schedule. This team effort between the Army, U.S. Fish and Wildlife Service, The Nature Conservancy, North Carolina State University and others includes acquisition of private land to increase potential RCW habitat, and development of a landscape-analysis model to spot potential acquisition sites. ***Helping the regional RCW population and its habitat to "recover" would reduce or eliminate RCW-related training restrictions, saving Fort Bragg and the Army about $600,000 a year.***

Conservation Assistance

The USAEC-managed Conservation Assistance Program (CAP) provides quick technical help to Army installation natural and cultural resources managers. Through CAP, experts from Army Corps of Engineers agencies such as the Construction Engineering Research Laboratories or Waterways Experiment Station provide technical assistance ***at no cost to the installation.*** CAP support includes sampling procedures, study designs, data analysis, Geographic Information System (GIS) and remote- sensing techniques, revegetation and erosion control, archeological site management and other tight-deadline conservation projects. USAEC arranged assistance for more than 30 such projects in Fiscal 1998; about 99 percent of CAP users, according to installation surveys, are satisfied customers.

Performance

Conservation

Preserving Cultural Resources

In Context

USAEC funded three historic contexts, helping Army and other military cultural resources managers meet federal requirements to identify and evaluate certain properties for inclusion on the National Register of Historic Places. The reports, covering the Army's Capehart-Wherry housing inventory, its Cold War military industrial complex and Quartermaster Standardized Plans, also gave installations consistent data and background information for assessing the significance of these sites. The nationwide effort spared many installations the cost of conducting their own studies, saving the Army more than $5 million. The national scope of the contexts makes their findings more defensible than local contexts, reducing the chance of conflict with State Historic Preservation Officers on eligibility determinations.

Study Savings

Here are the costs of each study, the approximate number of installations it covers, and the savings earned by conducting national (rather than individual) studies.

Study (cost)	Installations Addressed	Savings
Capehart-Wherry housing ($53,866)	57	$801,134
Cold War military industrial complex ($111,770)	150	$2,138,230
Quartermaster Standardized Plans ($75,000)	150	$2,175,000

Preserving Cultural Resources

USAEC's technical support and oversight helps installations integrate cultural resources preservation into all aspects of Army operations and training, solidifying our commitment to protect the nation's cultural heritage.

Historic Preservation

Army installations contain more than 50,000 known cultural resources and include 11 national historic landmarks or districts. USAEC staff completed Army Regulation 200-4 and Army Pamphlet 200-4 (Historic Preservation) and posted them to the USAEC Web site, giving installations easy access to information that will help them save money while complying with the National Historic Preservation Act and other laws. We also enhanced our support by working with the National Trust for Historic Preservation, the Advisory Council on Historic Preservation, the National Council of State Historic Preservation Officers and other experts on historic property projects.

Counterpart Regulation

Looking to streamline the way Army installations manage their historic properties, USAEC legal and conservation experts wrote a "counterpart regulation" to Section 106 of the National Historic Preservation Act. The draft regulation underwent revision throughout Fiscal 1998 after distribution to major Army commands and other organizations for comment. When approved in Fiscal 1999, the regulation will require installations to submit historic properties management plans to the State Historic Preservation Officer (SHPO), the Advisory Council on Historic Preservation (ACHP) and the Army for review. After the ACHP and the Army certify the plan, the

installation can operate for five years without further SHPO or ACHP review, ***RESULTING IN SIGNIFICANT COST SAVINGS.***

Installation Inventories

Installations can't protect cultural resources they can't find, so USAEC launched the Historic Properties Reconciliation Project. This test program includes a spreadsheet to identify historic properties using existing information; users will eventually be able to update information on historic properties and track data using multiple queries.

Privatization Initiatives

We're providing sound and timely environmental support to the Army's Residential Community Initiative and Utilities Privatization programs. Privatization of family housing and utilities is an Army priority, recognized as a key to improving installation management and quality of life for soldiers and their families. USAEC's work focuses on protecting human health and the environment during the privatization process; ensuring the Army meets its responsibilities under the National Environmental Policy Act, the National Historic Preservation Act and other environmental laws; reducing environmental compliance costs; and minimizing future environmental liability. USAEC is an important member of the privatization planning team, working closely with Army Headquarters, major command facility and housing managers, The Office of the Judge Advocate General and the Army Corps of Engineers to identify and solve environmental privatization issues and provide timely guidance and technical support to the field.

Native American Guidance

Many Army installations contain sites and objects of significance to Native American tribes that once lived on those lands. USAEC centrally manages Army programs to comply with federal laws, such as the Native American Graves Protection and Repatriation Act (NAGPRA), that require installations to consult and communicate with Native American groups on cultural resources matters. We completed NAGPRA documentation requirements for more than 100 Army installations, and provided on-site assistance to installations on Native American Consultation Guidelines. We also participated in workgroups to develop Defense Department policy for establishing formal relationships with American Indians and Alaska Natives.

Performance

Pollution Prevention

USAEC guides Army initiatives to invest in methods that prevent pollution and cut the costs of doing business.

USAEC's pollution prevention efforts help Army installations maintain readiness and meet environmental requirements through better business practices, reflecting the Center's commitment to saving money and quickly putting ideas to work in the field.

Better Management

Through Hazardous Material Management Programs, ***Army installations have saved thousands of dollars by reducing hazardous waste generation and improving their management of hazardous materials.*** USAEC helped several installations establish "pharmacies" – known as Hazardous Materials Control Centers – that coordinate storage and distribution of paint, solvents and other hazardous materials. Using Hazardous Substance Management System (HSMS) software and innovative, centralized-management techniques, these control centers track requests, usage and returns of hazardous materials. Our HSMS team has brought more than 20 installations into the program since Fiscal 1996, and it will work with major commands to field HSMS at 100 installations by Fiscal 2004. We also continued our comprehensive program – which includes technical support, training, briefings and newsletters – to standardize HSMS across the Army.

The Armywide HSMS program is a team effort. USAEC manages HSMS implementation at the installation level; the Assistant Chief of Staff for Installation Management (ACSIM) and Deputy Chief of Staff for Logistics prepare policy and guidance. The Program Executive Office, Standard Army Management Information Systems assists with the technical aspects of the program, and Army Corps of Engineers contractors help installations implement improved business practices.

Prescriptions for Savings

During Fiscal 1998, Fort Campbell avoided $1.6 million in various environmental costs through HSMS and other improved business practices. The Kentucky post cut its generation of hazardous waste from 736,000 pounds in 1992 to just under 71,000 pounds in 1998 – saving more than $800,000 in annual disposal costs.

A comprehensive inventory management program helped Fort Carson extend the shelf lives of 12,425 items – saving about $293,500. The Colorado installation also avoided $560,000 in waste-disposal costs and saved $131,000 by collecting and reusing certain hazardous materials.

Detroit Arsenal in Michigan avoided more than $215,000 in management costs shortly after fully implementing its HSMS program.

Pollution Prevention

Performance

Sound Investments

The USAEC-administered Pollution Prevention Investment Fund (P2IF) pays for pollution prevention projects that cut compliance costs and reduce generation of hazardous waste. Launched by the Office of the Director of Environmental Programs (ODEP) in 1997, the fund will grow to $10 million a year starting in Fiscal 1999. The money will be available to all Army installations, including National Guard and Reserve. ODEP and USAEC will take project requests from the field and search annual Environmental Program Requirements reports for candidates.

Quick Returns

So far, P2IF projects have helped eight installations achieve or estimate $354,000 in savings. For example:

- Fort Carson spent $16,600 on a weapons-cleaning system and projects $23,000 in savings.
- Fort Monmouth will save $100,000 after buying a $35,000 solvent recovery system.
- Fort Hood expects to save $100,000 after buying two paint-can crushers that turn cans into recyclable products and extract usable paint.

Buying Green

USAEC is teaching the Army community about "Affirmative Procurement," the federal program for buying products made from recycled materials. Several laws and executive orders instruct federal agencies to buy and use such products – especially those in the Environmental Protection Agency's Comprehensive Procurement Guidelines, which include items ranging from office supplies to motor oil. We're working with several partners, including the EPA, the Defense Logistics Agency, the Air Force and the National Marketplace for the Environment, to bring this information to Army audiences. The new Affirmative Procurement section on the USAEC Web site ties together all facets of the program, including purchasing information, vendors and manufacturers, the latest news on EPA-designated items, and related Web links. Coming soon: an Affirmative Procurement guide and educational video that show how to integrate environmentally preferable products into Army operations.

Acquisition Support

Our new Acquisition Support Team works with the Army's combat development, materiel development and base operations communities to integrate environmental considerations into the weapons procurement process. During Fiscal 1998, these partners began calculating the environmental life-cycle costs for the RAH-66 Comanche helicopter. The calculation defines and "captures" the environmental costs incurred during development, production, activation, operational use and eventual disposal of a weapon system. Analyses of the Comanche and other systems will help program managers evaluate alternatives for preventing pollution and avoiding millions of dollars in hazardous-waste disposal costs, while forecasting environmental operating requirements for emerging weapon systems.

Performance

Environmental Technology

USAEC DEMONSTRATES COST-EFFECTIVE TECHNOLOGIES THAT STRENGTHEN THE ARMY'S ABILITY TO MEET ENVIRONMENTAL REQUIREMENTS.

Our technology demonstration programs enable the Army to test and implement cost-effective technologies in pollution prevention, conservation, compliance and restoration. From cleanup devices to better ways of doing business, these innovations protect the environment while supporting military operations, installation management and materiel development.

On the Range

USAEC and the Army Training Support Center lead an initiative to apply the latest conservation, compliance and pollution prevention techniques to training range operations. Range XXI gives installations cost-effective tools for managing environmental considerations on ranges while conducting realistic training. Range XXI projects include shock-absorbing concrete targets that capture bullets and prevent lead from building in soil; firing range designs that prevent erosion and the spread of pollutants; nontoxic ammunition; guides to environmentally responsible range operations and management; technologies that separate lead and other heavy metals from soil; methods of detecting buried unexploded ordnance (UXO); and biodegradation systems that use microorganisms to break down explosive compounds in soil and groundwater.

Fiscal 1998 Range XXI Highlights

Straight Shooting

In August 1998, Alaska Army National Guard soldiers became the first to train with "green ammo" – standard service rounds made with a special unleaded core. The copper-jacketed 5.56mm bullets, developed in partnership with the Army Armament Research, Development and Engineering Center, feature a core made of tungsten and tin. Use of the bullets, which fire as fast and straight as lead rounds, will reduce environmental costs at small arms ranges and cut the potential expense of removing heavy metals from the soil. They should be available Armywide in 1999.

Detailed Detection

Our comprehensive UXO Technology Demonstration Program continues to set standards for UXO detection tools. We moved into the final phase of a project at Jefferson Proving Ground, Indiana, to test systems that detect, identify and remediate UXO. The tests have produced several devices that can find buried objects; the last part of this demonstration aims to find those that can discriminate between ordinary buried metals and actual UXO. The technologies include ground-penetrating radar, infrared sensors and sophisticated metal detectors.

Erasing Erosion

We teamed up with Army Training and Doctrine Command staff to produce a comprehensive guide, *Prevention of Lead Migration and Erosion from Small Arms Ranges*. Available in print and on the USAEC Web site, the guide offers installation range managers and environmental staffs cost-effective ways to reduce adverse effects of range operations on human health and the environment.

Environmental Technology

Performance

Real Savings, Real Time

From explosives in soil to jet fuel in groundwater, the Site Characterization and Analysis Penetrometer System (SCAPS) finds pollutants faster and cheaper than any technology in the field today. We coordinate the Tri-Service SCAPS program, a research, development and technology demonstration effort to provide state-of-the-art cone penetrometer tools for locating contaminants, analyzing wastes, and mapping underground water and soil features – in real-time, on-site and for about half the costs of traditional characterization techniques.

SCAPS technologies are helping the government save millions of dollars in remediation site work. In the past three years alone, using SCAPS:

- Saved the Army $301,000 at Aberdeen Proving Ground, Maryland, and more than five months of labor and research time.
- Saved $600,000 and a year of labor at Camp Pendleton, California.
- Delivered accurate contamination data that helped the Navy close a site at FISC Fuel Farm in Point Loma, California – avoiding $1 million in potential cleanup costs.
- Saved $800,000 at the Energy Department's Savannah River Site in South Carolina.
- Saved $360,000 and 22 months of work at the former Donaldson Air Force Base in South Carolina.
- Helped Vance Air Force Base, Oklahoma, avoid some $350,000 in drilling-and-sampling related waste disposal costs.

Remediation Roundtable

USAEC is an active member of the Federal Remediation Technologies Roundtable (FRTR), a group of federal agencies involved in cleaning up hazardous waste sites. The FRTR, which includes members from the Environmental Protection Agency, NASA, and the departments of Defense, Energy, Agriculture, Interior and Commerce, exchanges information on the use and development of innovative hazardous waste treatment technologies. USAEC produced the *FRTR Remediation Technologies Screening Matrix and Reference Guide*, a comprehensive source for screening and evaluating cost-effective technology solutions to the federal government's hazardous waste challenges.

Cleaning Up – Naturally

USAEC is helping installations use bioremediation (boosting the activity of naturally occurring microorganisms) to remove explosive compounds from soil. We demonstrated several bioremediation technologies and obtained critical performance information that will help us transfer these applications to many Army installations. Bioremediation combines natural processes with simple technology, costs less than incineration and has been widely accepted by the public. Windrow composting and bioslurry are two proven bioremediation methods; ***Umatilla Army Depot in Oregon saved $2.6 million by composting its affected soil instead of incinerating it.***

Better Environmental Tools

It doesn't matter whether an environmental technology comes from a Defense lab or private company – so long as it does the job. As part of our mission to assess Army environmental technology requirements, we identified commercial off-the-shelf tools that could address the Army's environmental concerns. Our Army Environmental Requirements and Technology Assessment (AERTA) Web page (www.denix.osd.mil/denix/DOD/Policy/Army/Aerta/default.html) offers lessons learned and describes products from various government and commercial sources.

UXO Forum

For the last four years, USAEC has hosted a major Department of Defense conference on unexploded ordnance issues. The UXO Forum gathers a diverse audience from government, industry, academia and public interest groups to address UXO concerns, discussing topics such as technology development and applications, site management, and UXO policies and procedures. More than 500 people attended the 1998 UXO Forum; we expect more than 550 to take part in the 1999 forum in Atlanta.

For information on any USAEC environmental technology program, write to t2hotline@aec.apgea.army.mil or call 1-800-USA-3845.

Performance

Regional Coordination

USAEC COORDINATES, COMMUNICATES AND FACILITATES REGIONAL ENVIRONMENTAL ISSUES AND ACTIVITIES.

Our Regional Environmental Offices (REOs) work with military major commands and installations, regulators, industry and communities on regional issues of interest and importance. Army regional environmental coordinators and their staffs communicate with the key players in regional, state and local regulatory agencies, using their detailed understanding of the issues to articulate Army and Defense Department positions on statutory and regulatory proposals that can adversely affect military readiness.

Munitions Rule Strategy

The Environmental Protection Agency launched its Military Munitions Rule in August 1997, but many states still weren't sure how or whether to enact it. Our regional environmental coordinators conducted concise briefings across the country to explain the rule and its importance to military training – helping state regulators understand its provisions from the military's perspective. USAEC regional and headquarters staffs also worked with major commands to make sure Army logistics and environmental experts knew the details of the rule.

Veto Victory

A proposed Colorado Senate bill calling for direct state regulation and reduction of virtually every source of airborne emissions at federal facilities – from lawnmowers to training operations – would have put installations under a larger regulatory microscope than private sector facilities. The Western Regional Environmental Office (WREO), with its dual role as the Defense Department's environmental coordinator in Federal Region 8, gathered and submitted the military's input to an alliance of federal and state agencies opposed to the bill. WREO staff stayed in touch with Army Headquarters and senior Defense environmental leaders, opening a dialogue between federal and state government officials that led Governor Roy Romer to veto the bill.

ARMY ORGANIZATIONS IN COLORADO WILL AVOID $1 MILLION IN EXTRA COMPLIANCE COSTS AS A RESULT.

Consistent state-to-state adoption of the Military Munitions Rule will allow the Army to conduct realistic training nationwide without interruption or extra regulatory costs. By October 1998, 16 states and territories had adopted the EPA version of the rule; two states adopted it with amendments.

Regional Coordination

Performance

Cleanup Partners

Through a partnership with regulators, military major commands and installations, the Southern Regional Environmental Office (SREO) is improving restoration management at federal facilities in Federal Region 4. By tackling the cleanup process at three levels, the "Tiered Partnering" program offers forums for program managers to address issues at the installation level and, if necessary, raise them smoothly to state and regional levels. Driven by a simple goal – to provide for the quickest and most cost-effective cleanup – ***THE PROGRAM ENHANCES COMMUNICATION AMONG PARTICIPANTS, ALLOWING THEM TO SHAPE EFFECTIVE RESTORATION PROJECTS THAT SAVE TIME AND TAXPAYER MONEY.***

Cutting Permit Fees

The Central Regional Environmental Office took part in a working group of military services, installations and other regulated entities to revise proposed regulations that would have established exorbitant hazardous waste permit fees in New Mexico. The group's work helped to substantially reduce fee amounts included in the final rules: ***ARMY INSTALLATIONS IN NEW MEXICO CAN EXPECT TO AVOID ABOUT $1.2 MILLION A YEAR*** in permit application and business fees. The workgroup also helped streamline the permitting process and secured a cap on annual business fees. All told, ***DOD AND ENERGY DEPARTMENT FACILITIES IN NEW MEXICO WILL SAVE ABOUT $86 MILLION OVER THE NEXT EIGHT YEARS.***

Affordable Air Quality

Virginia regulators had planned to require certain owners of fleet vehicles – including the military – to convert to clean fuels such as natural gas or electricity. The Northern Regional Environmental Office (NREO) joined with the other services to enlighten Virginia legislators on the financial and logistical burdens such regulations would place on DoD installations and activities. The state general assembly passed a bill requiring Virginia to follow the Environmental Protection Agency's less-stringent air quality attainment designations, ***SAVING DOD ABOUT $4 MILLION IN CONVERSION COSTS.***

USAEC Regional Environmental Offices in Denver, Kansas City, Atlanta and Aberdeen Proving Ground are strategically located to support military installations and major commands across the country.

Legislative & Regulatory Assessment

USAEC TRACKS PROPOSED LAWS AND REGULATIONS THAT CAN AFFECT ARMY OPERATIONS.

Because environmental costs can jump with the slightest legislative or regulatory shift, the Army needs to be involved in every step of the environmental rulemaking process. USAEC monitors national, regional and local regulatory climates, keeping Army and Defense Department policymakers on top of the issues and prepared to meet changing requirements.

Monitoring Changes

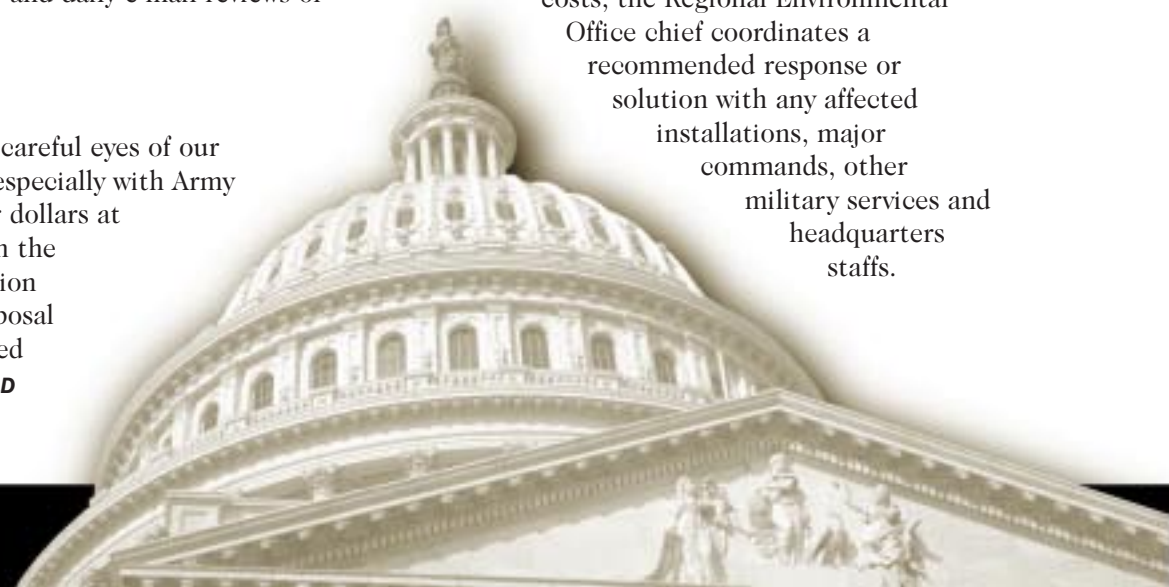
USAEC's Environmental Legislative/Regulatory Analysis and Monitoring Program (EL/RAMP) engages the Army in the earliest stages of legislation and regulatory rulemaking – on state, regional and national levels. EL/RAMP teams analyze legislative and regulatory proposals to keep decisionmakers abreast of potential changes in laws and regulations that could adversely impact Army operations or result in substantially higher compliance costs. The program also provides an Army and Defense Department perspective to regulators, with the intent to modify the proposed regulatory requirements. The EL/RAMP process enables the Army to consolidate comments on key issues and "speak" to Congress and regulators in a strong, single voice. EL/RAMP also brings information to all sections of the Army through information papers, environmental "alerts" and daily e-mail reviews of the *Federal Register*.

PCB Proposals

Few things escape the careful eyes of our EL/RAMP specialists, especially with Army readiness and taxpayer dollars at stake. Compliance with the Environmental Protection Agency's proposed disposal rules for polychlorinated biphenyls (PCBs) ***WOULD HAVE COST THE ARMY AN EXTRA $72 MILLION A YEAR.*** The Army provided detailed comments on the shortcomings of the proposed regulations to the EPA. As a result, the regulatory agency decided to postpone the rule pending further studies.

Stating Army Positions

Our Regional Environmental Offices are spearheading a Department of Defense program to fortify compliance efforts at installations. The State and Local Environmental Legislative-Regulatory Analysis and Monitoring Program, tagged "S-RAMP" for short, increases installations' ability to represent their interests to lawmakers and regulators before legislation is passed or regulations and policies are implemented. If S-RAMP experts spot proposed legislation, rules or policy that could adversely impact Defense Department or Army operations and costs, the Regional Environmental Office chief coordinates a recommended response or solution with any affected installations, major commands, other military services and headquarters staffs.



Legal Support

Performance

When an environmental project contains a legal element – and most do – USAEC gives it a thorough legal review. From examining cleanup agreements to drafting Armywide guidelines, our legal team applies its expertise in environmental laws and regulations, contracting and fiscal laws, personnel rules and ethics issues, and administrative laws covering Freedom of Information Act and Privacy Act requests.

USAEC REVIEWS AND RESPONDS TO A WIDE RANGE OF ENVIRONMENTAL LEGAL ISSUES.

Smoke Generators

USAEC produced a Programmatic Environmental Assessment of the Army's use of smoke-obscurant generators. Developed in compliance with the National Environmental Policy Act, the document assessed the potential environmental impacts of equipment that generates smoke for hiding troops on the battlefield. Producing the environmental assessment was a necessary step toward using smoke-obscurant generators at training sites – and will ensure readiness throughout the Army.

Range Rule

We took the lead in developing the Range Rule, a proposed federal regulation for evaluating and responding to environmental and explosives safety issues at former military ranges. Our legal staff wrote much of the Range Rule and, following federal government requirements, reviewed it with the Environmental Protection Agency, the departments of Interior, Agriculture and Energy, and the Office of Management and Budget. We also researched and analyzed current laws and regulations that may impact the rule, which should become final in late 1999. The USAEC Range Rule team has also worked closely with affected federal and state agencies, American Indian tribes and others to develop a methodology for assessing and managing risks to the public on former ranges – an integral part of the Range Rule effort. ***THE RULE'S UNIFORM STANDARDS ARE EXPECTED TO HELP THE DEPARTMENT OF DEFENSE SAVE ABOUT $12.7 BILLION*** in compliance costs over the next 10 to 15 years.

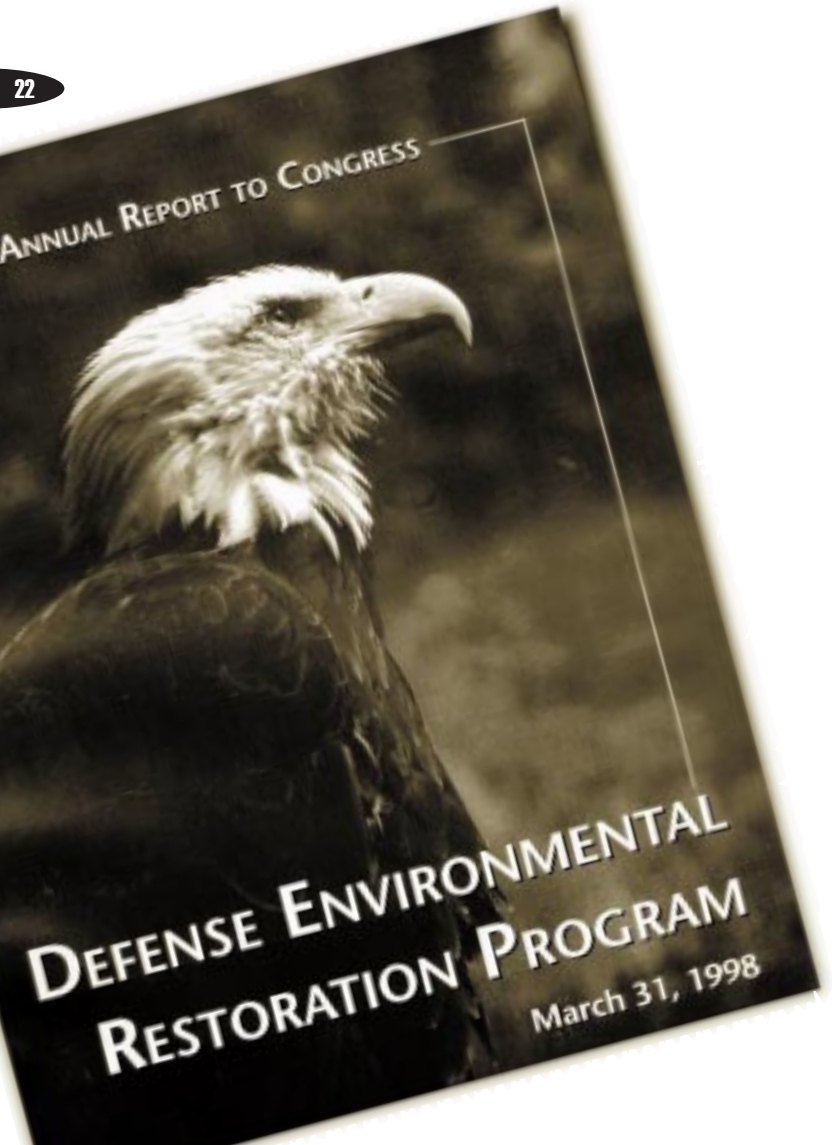
Lead-Based Paint

The Center tackled several issues relating to hazardous, lead-based paint on Army buildings and homes. We drafted a comprehensive policy that established a uniform approach to complying with laws and regulations addressing lead-based paint. We also participated on the Defense Department workgroup charged with drafting guidance on lead-based paint; the group will coordinate with the EPA to prepare mutually-acceptable guidance that helps military installations avoid adverse financial and operational impacts.

Performance Reporting

From collection to analysis, USAEC manages information critical to the Army's environmental program.

Reporting on environmental programs – to Congress, and to Defense Department and Army leaders – is one of our major responsibilities. Because decisionmakers use the information in these reports to design programs, check Army progress toward environmental goals and determine funding for the entire Army environmental program, the data must be accurate and presented in clear, functional formats. USAEC designs reporting tools and techniques that make it easier for installations to send this critical and voluminous information through the chain of command. We also compile, check, analyze and maintain the information, and produce comprehensive reports that demonstrate the prudent use of taxpayer investments in Army environmental programs.



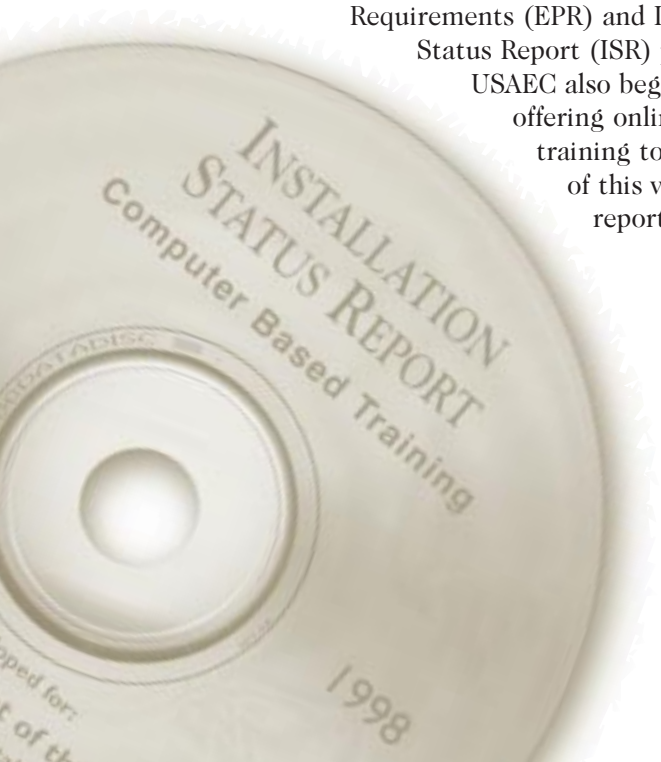
Cleanup Data

When you report on multimillion-dollar cleanup projects, you need the latest and most accurate information. The Army uses the Defense Site Environmental Restoration Tracking System (DSERTS) database to compile the *Defense Environmental Restoration Program Annual Report to Congress*, track site-level progress, set restoration budget needs, estimate the total costs to complete restoration projects, evaluate the environmental and health risks of contaminated sites, review restoration program progress, prepare BRAC Cleanup Plan abstracts, and provide information for installation cleanup action plans. In addition to new features for importing cost-to-complete estimates into DSERTS, data collection for DSERTS went "real time" with the shift of DSERTS to the World Wide Web. Installations can now edit their restoration data and submit it instantly to major commands, which no longer have to wait to get the information through the mail on computer disks. People at all command levels can review the information whenever they

need it. ***THE DSERTS UPGRADE HAS SAVED TIME AND MONEY BY ALLOWING THE ARMY TO COLLECT INFORMATION WITHOUT DISTRIBUTING SOFTWARE TO THE FIELD***, and the program's built-in quality assurance reports have dramatically improved our ability to detect and correct data gaps and inconsistencies.

Environmental Answers

How's the Army's environmental record? Are fines and violations down? Are installations generating less hazardous waste? Did the Army meet federal deadlines for upgrading underground storage tanks? The Environmental Quality Report (EQR), a large database, answers these and other questions about compliance, conservation and pollution prevention for leaders throughout the Army and up to the Secretary of Defense. Installations submit this information every quarter to USAEC through their major commands, and we worked throughout the past year with major commands to make the reporting process and EQR system work more efficiently. We improved our ability to collect and report on this critical data by launching a Web version of the EQR software – upgrading it from its old DOS format – and progressing with plans to integrate the system with the Environmental Program Requirements (EPR) and Installation Status Report (ISR) programs. USAEC also began offering online training to new users of this valuable reporting tool.



Quality Reviews

We released the new Environmental Program Requirements Review (EPR-R) software, updating another valuable reporting tool. EPR-R software is an Oracle-based, quality control review form, which can be used to help Army managers assess individual projects against a variety of metrics and Army guidelines. USAEC uses the software to conduct Quality Control/Quality Assurance reviews of the Army's environmental projects. USAEC environmental specialists use EPR-R to examine major command programs and requirements to ensure that current and planned environmental initiatives are sufficiently addressing the Army's environmental obligations and that the funds required to support the projects are defensible.

Installation Reports

The Installation Status Report (ISR) gives Army commanders and senior leaders a "big picture" view of installation operations – including environmental programs. The ISR measures programs on tasks that must be routinely accomplished to achieve the installation mission; it also provides information to help commanders prioritize and justify resources. Fiscal 1998 marked the first year for full implementation of ISR's environmental section (Part II – Environment), with installations outside the continental United States reporting for the first time. USAEC also started looking at ways to automatically import data from the other environmental reporting systems, such as the Environmental Quality Report, into ISR to eliminate duplicative reporting and improve data accuracy. Down the road, we'll attempt to link programming and funding shortfalls to future environmental status and readiness detractors, through the use of "C-rating" degradation models. Further integration of Part II – Environment with the other ISR sections (Part I – Infrastructure and Part III – Services) will allow Army decisionmakers to examine base operations as a whole.

Performance

Awareness

USAEC DEVELOPS TIMELY EDUCATIONAL MATERIALS THAT RELAY THE ENVIRONMENTAL ETHIC TO ALL LEVELS OF THE ARMY.

The more soldiers and civilians know about the environment, the better they can protect it. USAEC provides direct educational and awareness support to installations and major commands through a partnership with the Army Environmental Awareness Resource Center (EARC) in Huntsville, Alabama, and other initiatives.

Training Tools Catalog

EARC upgraded its *Defense Services Directory of Environmental Education and Training*. The Microsoft Access database – also known as the "Tools Catalog" – supports identification and cross-linking of classroom courses; other materials such as training packages, videos, manuals, brochures and posters; and regulatory environmental training requirements. It also includes a consolidated Defense Department "common environmental task list" and highlights joint service environmental courses.

Setting Examples

You can learn a lot from others' success, so we make sure stories of the Army's best environmental programs and people reach both military and public audiences. USAEC coordinates the annual Secretary of the Army Environmental Awards and organizes Army participation in the Secretary of Defense Environmental Security Awards program. We devised a comprehensive communications strategy to publicize the winners of 1997 Secretary of the Army awards, releasing articles, photos and video spots on each of the winners to the Pentagon press corps as well as installation and local media. Underscoring the Army's role as a national environmental steward – as well as USAEC's ability to identify and promote successful programs – the Army won a record eight Secretary of Defense environmental awards.

Environmental Internships

Through a partnership with the Oak Ridge Institute for Science and Education (ORISE), we train scientists, engineers and technologists for environmental programs and activities on Army installations. We have placed 140 ORISE participants at 40 installations since the program began, ***HELPING INSTALLATIONS AVOID ABOUT $3 MILLION IN CONTRACTING COSTS.*** Our week-long "Army 101" orientation course introduces ORISE interns to the Army mission, organization and environmental program, and provides specific training related to their field assignment.

New Publications

We added several publications to our collection of awareness materials. We revised the *Commander's Guide to Environmental Management*, releasing it in print to Army schools and as an interactive program on the USAEC Web site. Army users also have access to our Battalion Commander's Environmental Card and several video and computer-based training products from EARC.

Easy Information

USAEC's Web site received more than 1.2 million hits during Fiscal 1998, and our 24-hour Environmental Response Line handled 655 requests for information from December 1997 through September 1998.

Outreach

From public meeting plans to outreach training, USAEC provides environmental public affairs support to Army Headquarters, major commands and installations. The Center's new programmatic mission allowed us to oversee public involvement activities that helped installations build strong relationships with local communities.

USAEC PROVIDES ARMYWIDE ENVIRONMENTAL PUBLIC AFFAIRS SUPPORT.

All the News . . .

Our national print and broadcast initiatives tell the Army's environmental story to millions of readers and viewers among the Army, Defense Department and American public. The print and online versions of our quarterly *Environmental Update* include news and feature articles promoting smart and innovative ways of doing business – ***INFORMATION THAT COULD HELP THE ARMY SAVE MILLIONS OF DOLLARS.*** Our Soldiers Radio and TV correspondents interview newsmakers from the Chief of Staff to the newest troops, creating TV spots and videos that relay the environmental ethic to the field. Our Regional Office newsletters keep installations aware of the regulatory issues that could affect them. We also worked with *Soldiers* magazine in 1998 to create the "Environmental Front," a bimonthly section of soldier-focused environmental news compiled by USAEC staff members.

Range Rule Answers

When people had questions about the proposed Range Rule, we delivered the answers. USAEC led the Defense Department effort to develop and implement the Range Rule Public Involvement Plan. After collecting information from each service, we orchestrated a program that gave federal and state agencies and the public an opportunity to participate in the rulemaking process. We also played a major role in developing and conducting four regional information forums to address questions and issues from the public.

Earth Day Events

From tree plantings to recycling drives, USAEC is the primary organizer of Army Earth Day events. We revised and distributed our Army Earth Day Planning Guide in 1998, adding success stories and tips from installations around the world. We created posters, fact sheets, brochures and other materials to help installations conduct effective and educational programs with their community neighbors using the 1998 Army Earth Day theme, "One Mission, One Environment, One Future: Preserve the Balance."

Restoration Advisors

The Restoration Advisory Board (RAB) program encourages public input on military restoration activities. We coordinate public-involvement matters associated with the RAB program, providing guidance and training to Army installations on forming and maintaining RABs. Since 1994, the Army has established 64 RABs that offer public input and opinions on cleanup projects at Installation Restoration and Base Realignment and Closure (BRAC) installations. The Army formed five new RABs in Fiscal 1998 and expects to add two more in Fiscal 1999.

Spanning the Globe

Our World Wide Web home page offers up-to-date environmental news and information to thousands of online visitors every day. The site's easy-to-navigate pages of text, photos, sound bites and video clips cover an array of topics, from installation and major command programs to USAEC initiatives with widespread military and Army application.

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TEAMWORK
Value
experience

Teamwork

Partnerships

PARTNERSHIPS ADD VALUE TO USAEC PROGRAMS AND STRENGTHEN OUR SUPPORT TO THE ARMY.

We know through experience that it takes teamwork to protect our nation's environment. These are some of the many partnerships we've formed with other services, Army organizations, government agencies, federal and state regulators, communities and businesses – combining resources and ideas to protect Army readiness, increase stewardship and improve quality of life.

Tri-Service Partners

Comprising the commanders and key staff from USAEC and the Navy and Air Force environmental centers, the Tri-Service Environmental Support Centers Coordinating Committee exchanges information and coordinates joint service activities that address a wide range of issues and programs. The committee has produced a Joint Service Pollution Prevention Technical Library and conducted joint "P2 Opportunity Assessments" that help military installations find ways to reduce or eliminate pollution during mission operations.

Army Partners

USAEC began working with Aberdeen Test Center (ATC) in 1998 to demonstrate several technologies that reduce environmental impacts on training ranges. ATC provides experienced personnel, state-of-the-art facilities, equipment and industrial capabilities; we manage the demonstration programs, assess the test results and disseminate information on the emerging technologies to the Army, Navy, Air Force and other federal agencies.

Federal Agency Partners

Under formal Memoranda of Understanding with USAEC, liaisons from the U.S. Geological Survey, Advisory Council on Historic Preservation, Bureau of Land Management, Natural Resources Conservation Service, U.S. Fish and Wildlife Service and U.S. Forest Service work with USAEC's conservation staff. The liaisons tap into their agencies' resources to help Army installations better manage natural and cultural assets. During Fiscal 1998 alone, the Forest Service supported more than 20 Army projects ranging from natural resources inventories to ecosystem management plans.

Partnerships

Teamwork

Regulatory Partners

USAEC's Regional Environmental Offices team up with state regulators on a broad range of issues.

The Northern Regional Environmental Office, for example, helped shape an agreement between the Army, Navy, Air Force, Defense Logistics Agency and Pennsylvania Department of Environmental Protection to assess cleanup requirements and complete remediation efforts at the state's military sites 10 years early. The partners aim to streamline the cleanup process through mutual incentives, joint planning, use of innovative technology, public participation and resource sharing. In addition, USAEC, Army Headquarters and major commands held environmental restoration partnering meetings with state and Environmental Protection Agency personnel from EPA Regions 3, 4, 5, 6 and 7.

The Central Regional Environmental Office takes part in the Texas Pollution Prevention Partnership, a winner of both the White House's Closing the Circle Award and the Vice President's Hammer Award. The partnership has forged a cooperative spirit between federal agencies and the Texas Natural Resources Conservation Commission – and ***ITS INITIATIVES HAVE HELPED MILITARY INSTALLATIONS SAVE MORE THAN $650,000 WHILE CUTTING 450,000 POUNDS OF HAZARDOUS WASTE.***

Community Partners

USAEC staff volunteered 200 hours as part of a student enrichment program at Edgewood (Maryland) Elementary School. The program, which includes activities such as tree plantings and "science nights," has enhanced our relationship with the community and opened students' eyes to careers in science and the environment. The Harford County Chamber of Commerce saluted the program with a 1998 Partnership of the Year Award and nominated USAEC for a Maryland Spirit of Achievement Award.

International Partners

Visits from Italian, Chinese and South African military delegations in Fiscal 1998 highlighted the Army's role in shaping other nation's military environmental programs. Senior officers from each nation's military visited USAEC as part of informational U.S. tours, during which they learned about how the Army integrates environmental training into its daily operations, environmental management on ranges and maneuver areas, cleanup programs for closing military bases and other topics.

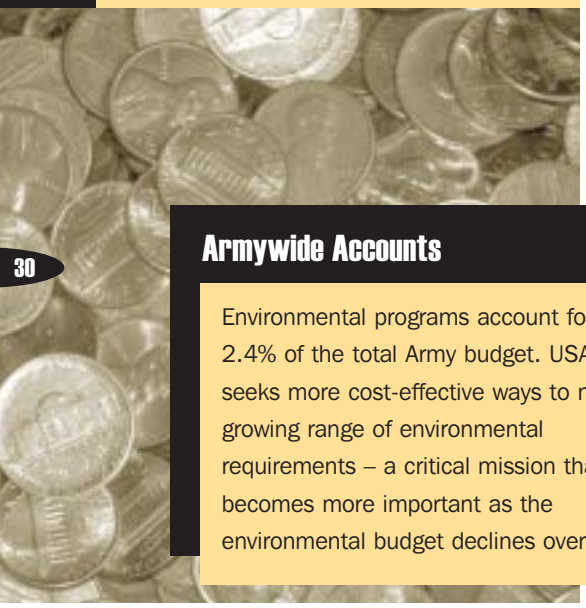
Value

Budget Support

USAEC PROJECTS, PROGRAMS, BUDGETS FOR AND EXECUTES MILLIONS OF ARMY ENVIRONMENTAL DOLLARS.

USAEC's budget support mission includes the efficient management of millions of environmental dollars each year. For example:

- We develop long-term and annual budget submissions for USAEC Environmental Quality programs, which include Armywide conservation, pollution prevention and compliance support.
- As the program manager for the Environmental Restoration, Army active site account – a $375 million program in Fiscal 1998 – we develop the Armywide installation restoration budget, manage its distribution to the major Army commands, and track and report on its eventual use.
- We provide technical and programmatic support for the Army's Base Realignment and Closure (BRAC) cleanup program, which included a Fiscal 1998 BRAC support budget of $3.5 million.



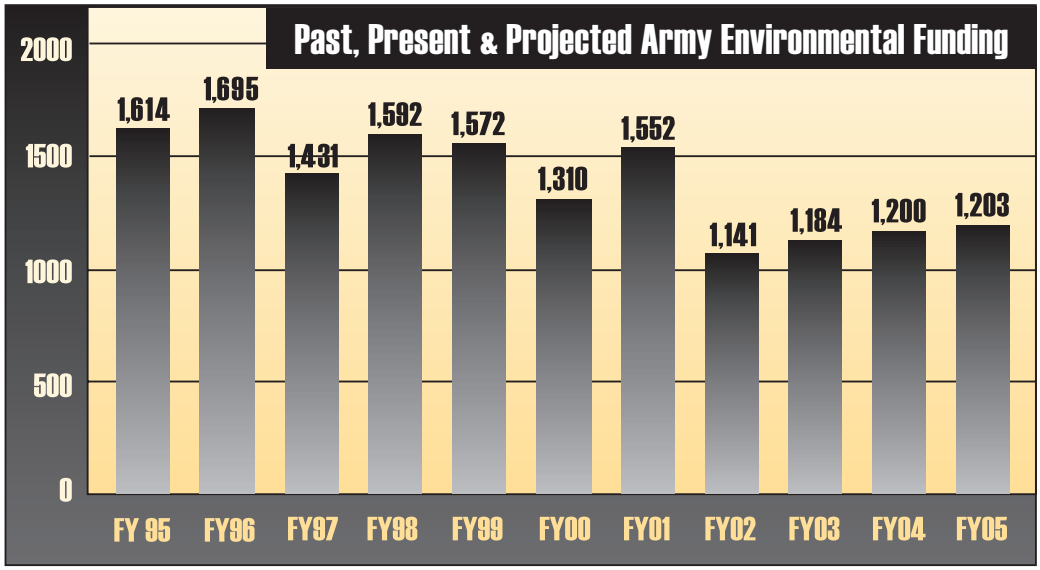
Armywide Accounts

Environmental programs account for about 2.4% of the total Army budget. USAEC seeks more cost-effective ways to meet its growing range of environmental requirements – a critical mission that becomes more important as the environmental budget declines over time.

The Army Environmental Budget

	FY98 $M	FY99 $M
Technology	69	79
Prevention	102	87
Compliance	518	503
Conservation	79	61
ER,A	375	370
FUDS	242	225
BRAC	207	247
TOTAL	1,592	1,572

Past, Present & Projected Army Environmental Funding



Includes funding (in millions) for Environmental Quality; Environmental Restoration, Army; Base Realignment and Closure (Restoration); Formerly Used Defense Sites (Restoration); and Environmental Technology.

Budget Support

Our Share

Within the Armywide environmental budget picture, USAEC managed and accounted for $99.3 million in direct and reimbursable funds in Fiscal 1998.

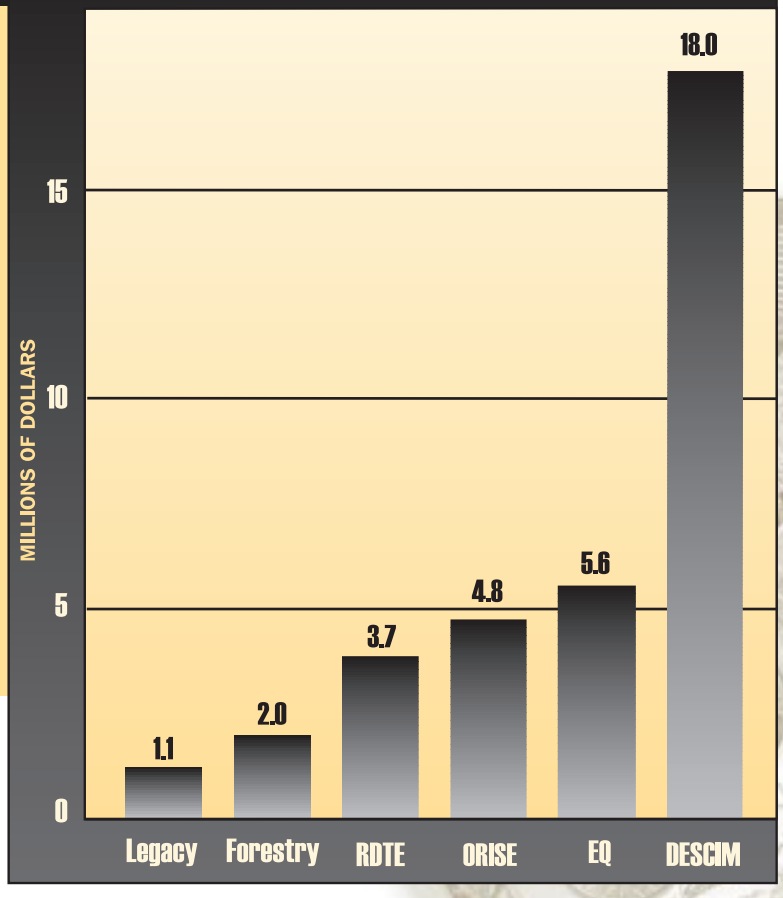
USAEC Programs

	$M
Environmental Quality *(Pollution Prevention, Conservation, Compliance)*	44.1
BRAC Support	3.5
Environmental Restoration	16.5
TOTAL	64.1

Direct funding covers USAEC's programs for Environmental Quality, BRAC support and Environmental Restoration management – $64.1 million in Fiscal 1998.

USAEC also managed and executed funding for several reimbursable programs, which added up to $35.2 million in Fiscal 1998. These "other" Army and Defense Department programs, funded outside USAEC's direct operating budget, included Defense Environmental Security Corporate Information Management (DESCIM); environmental Research, Development, Test and Evaluation (RDTE); DoD Forestry-Agricultural Leasing (Forestry); the Legacy Resource Management Program (Legacy); the Oak Ridge Institute for Science and Education (ORISE); and miscellaneous Environmental Quality (EQ) initiatives.

Other Programs



Experience

USAEC Organization

SINCE 1972, USAEC HAS SUPPORTED THE ARMY'S EXPANDING ROLE AS A WORLD LEADER IN ENVIRONMENTAL RESPONSIBILITY.

Armed with lessons from the past and a vision for the future, USAEC provides the tools and programs that prepare soldiers, installations, major commands and Army Headquarters to protect readiness and maintain quality of life through sound environmental stewardship. Our skilled workforce includes professionals in engineering, physical science, technology, chemistry, biology, geology, archeology, history, safety, health, law, resource management, information systems and public affairs. We also work with other Army, government, public and private experts to provide unparalleled, cost-effective support for military environmental programs.

Our History

USAEC was established in 1972 as the Program Manager for Chemical Demilitarization, responsible for safe disposal of chemical agents and munitions. The agency began managing the new Installation Restoration Program in 1975, and in 1978 became the U.S. Army Toxic and Hazardous Materials Agency (USATHAMA). During the 1980s and early 1990s, we transferred our chemical demilitarization duties while assuming the Army's environmental research, development, test and evaluation, pollution abatement, environmental technology and conservation missions. USATHAMA became the U.S. Army Environmental Center in 1993, a name that better reflected our broad range of responsibilities.

USAEC Organization

Army Environmental Organization

- Secretary of the Army
- Assistant Secretary of the Army (Installations, Logistics & Environment)
  - Deputy Assistant Secretary of the Army (Environment, Safety & Occupational Health)
    - Army Environmental Policy Institute
  - Army Chief of Staff
    - Army Staff
    - Army Staff
    - Assistant Chief of Staff for Installation Management
      - Director of Environmental Programs
        - U.S. Army Environmental Center (USAEC)
    - Major Commands
      - Installations
        - Directorates of Public Works/Environment
    - Army Corps of Engineers
    - Army Medical Command
      - Army Center for Health Promotion & Preventive Medicine

USAEC is an Army field operating agency in the Assistant Chief of Staff for Installation Management (ACSIM) chain of command, reporting to the Director of Environmental Programs (ODEP).

SUPPORT

Support

Let us help you preserve the balance between Army readiness and environmental stewardship. For more information about any of our programs:

Call the Army Environmental Response Line

1-800-USA-3845

Visit the USAEC Home Page

http://aec-www.apgea.army.mil:8080/

Write

COMMANDER
U.S. Army Environmental Center
ATTN: SFIM-AEC-PA
5179 Hoadley Road
Aberdeen Proving Ground, MD
21010-5401

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